

CHAPTER V

PROJECTING CONRAIL'S CASH FLOW

Chapter Summary. Projections of Conrail's net income and cash flow indicate its profitability in the short run and its viability in the long run. Estimates of Conrail's net income include projections of net operating income, capital gains on property sales, net interest income, and other miscellaneous sources of income. In the base case, net income rises from \$448 million in 1986 to a peak of \$604 million in 1992 and then declines slightly to \$588 million in 1995. In the low case, net income declines from \$437 million in 1986 to a low of \$279 million at the trough of the recession in 1988, and then increases steadily to a peak of \$468 million in 1995. Projections of Conrail's cash flow are constructed using its total sources of cash including net income, depreciation, property sales, and changes in working capital, and Conrail's total uses of cash including capital net of financing, debt installments, and payments to the federal government. In the base case, cash balances are projected to increase through 1987 to a total of approximately \$1.3 billion and then to decline continuously through 1995 to an ending balance of \$356 million. In the low case, cash balances also peak at the end of 1987 at \$1.2 billion and decline steadily to \$243 million at the end of 1995. Although Conrail's cash balances are being consumed in both cases, they remain positive throughout the next decade.

Conrail's cash flow over the forecast period is an important indication of its ability to remain viable as an independent company. Cash flow indicates whether Conrail is generating sufficient funds from operating and non-operating sources to maintain its physical plant, meet its debt payments, and provide for dividend payments to shareholders. In addition, if potential lenders view Conrail as a high risk and are unwilling to provide temporary financing in an unanticipated or extended downturn in the economy, an internal source of funds such as a cash reserve would provide financing during an unforeseen decline in net income. Therefore, Conrail's ability to maintain an adequate cash reserve over the forecast period may indicate its inherent strength as an independent company.

Conrail's annual cash flow statement shows the net change in its cash balance from the corporation's operating, investment, and financial transactions. Cash flow depends on the total sources of funds to the firm and the total uses of those funds. Conrail's main source of funds is net operating income; its main use of funds is the capital program net of external financing. This chapter discusses estimates of Conrail's sources and uses of cash, and projects Conrail's resulting cash flow for both the base case and the low case.

SOURCES OF FUNDS

Conrail's principal sources of funds are net income, noncash items, property sales, and changes in working capital. Each of these sources is estimated for the forecast period, and their sum is the total cash available to the firm. The forecasts of Conrail's sources of cash for the base case and low case are shown in Tables 14 and 15.

Net Income

Conrail's annual net income is both the principal measure of its profitability and the principal source of funds for nonoperating expenses. It shows whether the firm is generating sufficient funds to meet all operating expenses. The level of positive net income also indicates the ability of operations to provide funds for reinvestment in the company.

Net income after taxes is assumed to equal net income before taxes in the baseline scenario. Over the forecast period, Conrail's tax liabilities should be completely offset by its tax basis depreciation, investment tax credits, and net operating loss carryforwards. Therefore, Conrail's effective tax rates, actual tax liabilities, and extraordinary (tax) credits are not estimated. Moreover, any estimate of these tax payments would be subject to significant revisions should tax reform measures be enacted by the Congress.

Net income is the sum of net operating income and nonoperating income. **Net operating income**, projected in Chapter III, is total operating revenue less total operating expenses; it includes only income generated by or directly associated with operations. **Nonoperating income** is generated by other activities of the corporation--principally financial transactions--and consists of net interest income, capital gains on property sales, and other

miscellaneous income. Net interest income is interest earned on cash investments less the interest paid on external debt, which includes the long-term debt used to finance equipment and the debentures issued to the federal government. Although property sales are principally a transformation of the company's physical assets into cash or financial assets, any capital gains on the sales are considered income to the company and must be included in net income. "Other" income is primarily from rent but also comes from miscellaneous sources that vary from year to year.

In both the base case and low case, net interest is calculated from projections of interest income, interest expense on outstanding debt, and debenture interest due the government. Interest income is based on the average cash balance for each year. The average cash balance is obtained by estimating the net change in cash for the year without interest income, and by assuming a steady accumulation of the resulting change in cash during the year. Interest is earned at year-end on the average cash balance using the three-month Treasury bill rate from CBO's macroeconomic forecast. Interest on outstanding debt for each case is calculated as detailed in Chapter IV. Interest on the debentures issued to the government in exchange for past federal investment in Conrail is calculated on an outstanding balance of \$850.9 million and by using the stipulated rate of 7.5 percent. Interest payments in cash on these debentures must begin in 1988 according to a formula that is discussed below in the section on payments to the government. The interest on debentures is \$63.8 million a year in both the base case and the low case.

Conrail's own estimates of capital gains on property sales are used in CBO's projections through 1989. For the remainder of the forecast period, the 1989 level is increased with inflation so that the real value of capital gains remains constant after 1989. This method is used in both the base and low cases.

Other nonoperating income consists primarily of rental income for both right-of-way and other property. In the base case, Conrail's estimates provide the basis for the forecast through 1989, at which point the value of other income grows with inflation. In the low case, other income grows from 1986 through the recession at two percentage points less than the base case and then grows with inflation thereafter.

The projections of net income and its constituents are shown for the base case and low case in Tables 14 and 15. In both cases, nonoperating income turns negative in 1988 when payments to the government begin and interest on debentures is required. The additional interest expense from

TABLE 14. PROJECTIONS OF CONRAIL'S SOURCES OF CASH, 1986-1995: BASE CASE
(In millions of current dollars)

Sources of Cash	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Net Income After Federal Income Tax <u>a/</u>	442.2	448.0	530.3	512.1	515.0	568.8	592.5	603.8	603.3	595.5	587.5
Operating Income	397.0	417.5	489.2	528.8	537.0	596.4	625.1	639.7	642.8	642.4	642.6
Nonoperating Income	45.2	30.5	41.1	-16.7	-22.0	-27.6	-32.6	-35.9	-39.5	-46.9	-55.1
Capital gains <u>b/</u>	38.0	14.4	17.0	18.0	18.0	18.7	19.5	20.3	21.1	22.0	22.9
Net Int.	-21.4	-14.0	-6.8	-69.5	-76.8	-84.7	-92.0	-97.7	-103.8	-113.9	-124.9
Int. paid	-84.9	-80.0	-83.8	-80.5	-79.4	-78.4	-78.3	-78.3	-77.5	-79.7	-81.7
Int. on debentures	0.0	0.0	0.0	-63.8	-63.8	-63.8	-63.8	-63.8	-63.8	-63.8	-63.8
Int. earned	63.5	66.0	77.0	74.8	66.4	57.5	50.1	44.4	37.5	29.6	20.6
Other	28.6	30.1	30.9	34.8	36.8	38.4	39.9	41.5	43.2	45.0	46.9
Noncash Items	227.0	224.0	220.6	220.2	229.3	240.9	253.6	266.9	281.9	299.2	318.8
Depreciation	231.0	232.0	229.6	230.2	240.3	252.9	266.6	280.9	296.9	315.2	335.8
Other	-4.0	-8.0	-9.0	-10.0	-11.0	-12.0	-13.0	-14.0	-15.0	-16.0	-17.0
Property Sales	65.0	44.6	41.0	41.0	41.0	42.6	44.4	46.3	48.1	50.1	52.1
Changes in Working Capital	-95.0	-21.0	-25.0	-30.0	-35.0	-40.0	-45.0	-47.0	-49.0	-51.0	-53.0
Total Sources	639.2	695.6	766.9	743.3	750.3	812.3	845.5	870.0	884.3	893.8	905.4

SOURCE: For 1985, Conrail; for 1986-1995, Congressional Budget Office.

NOTE: Includes Conrail and subsidiaries. Historical data for 1985.

a. Federal income tax is assumed to be zero.

b. Capital gains on property sales.

TABLE 15. PROJECTIONS OF CONRAIL'S SOURCES OF CASH, 1986-1995: LOW CASE
(In millions of current dollars)

Sources of Cash	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Net Income After Federal Income Tax <u>a/</u>	442.2	437.4	416.1	279.0	313.7	360.1	384.1	412.1	431.5	448.7	467.8
Operating Income	397.0	399.8	368.5	308.3	348.1	401.4	430.4	458.0	476.4	495.2	515.4
Nonoperating Income	45.2	37.6	47.6	-29.3	-34.4	-41.3	-46.3	-45.9	-44.9	-46.5	-47.6
Capital gains <u>b/</u>	38.0	14.4	17.0	18.0	18.0	18.4	18.8	19.2	19.6	20.0	20.4
Net interest	-21.4	-6.9	0.1	-81.2	-87.8	-95.9	-102.0	-102.9	-103.0	-105.8	-108.1
Int. paid	-84.9	-80.0	-84.7	-80.0	-76.2	-72.2	-68.6	-64.7	-59.7	-57.6	-55.1
Int. on debentures	0.0	0.0	0.0	-63.8	-63.8	-63.8	-63.8	-63.8	-63.8	-63.8	-63.8
Int. earned	63.5	73.1	84.8	62.6	52.2	40.1	30.4	25.6	20.5	15.6	10.8
Other	28.6	30.1	30.5	33.9	35.4	36.2	36.9	37.8	38.5	39.3	40.1
Noncash Items	227.0	224.0	219.4	215.3	219.4	226.2	234.0	242.1	251.1	261.7	273.7
Depreciation	231.0	232.0	228.4	225.3	230.4	238.2	247.0	256.1	266.1	277.7	290.7
Other	-4.0	-8.0	-9.0	-10.0	-11.0	-12.0	-13.0	-14.0	-15.0	-16.0	-17.0
Property Sales	65.0	44.6	41.0	41.0	41.0	41.8	42.8	43.7	44.5	45.5	46.4
Changes in Working Capital	-95.0	-21.0	-21.8	-22.8	-23.4	-24.1	-24.7	-29.7	-34.7	-39.7	-44.7
Total Sources	639.2	685.0	654.7	512.5	550.7	604.0	636.2	668.2	692.4	716.2	743.2

SOURCE: For 1985, Conrail; for 1986-1995, Congressional Budget Office.

NOTE: Includes Conrail and subsidiaries. Historical data for 1985.

a. Federal income tax is assumed to be zero.

b. Capital gains on property sales.

debentures causes net interest to become negative at that point. Over the remainder of the forecast period, net interest becomes increasingly negative as interest earned on cash investments drops because of the heavy drain on current income and cash resources from payments to the government. Although other income and capital gains on property sales increase during this period, they are insufficient to offset the decline in interest income.

In the base case, the negative net interest results in a steady decline in nonoperating income by \$5 million to \$8 million a year through 1995. In the low case, interest on debentures remains constant as it does in the base case, but interest on external debt declines, thereby helping to offset the effect of lower interest income. As a result, nonoperating income levels off at approximately -\$46 million a year in the 1991-1995 period. In both the base case and low case, net income after federal income taxes is lower than net operating income because of the high charge against net income for total interest expenditures.

Noncash Items

Noncash items consist primarily of the noncash charge against operating income for depreciation. Since the depreciation charge is retained as cash and results in no outlay, it must be added to net operating income to get the actual cash flow from operations. Conrail's depreciation charges are estimated by the method described in the previous chapter, and those estimates are used in the cash flow statement. Noncash items also include a provision for adjustments to casualty reserves, which is also a noncash source of income and must be subtracted from the cash flow statement. This amount is assumed to grow by \$1 million a year, from \$8 million in 1986 to \$17 million in 1995. In both the base case and the low case, the value of noncash items dips somewhat in the 1987-1988 period (more so in the low case because of lower investment in equipment during the recession) and then grows steadily through the remainder of the forecast period (see Tables 14 and 15).

Property Sales

Property sales represent the transformation of physical assets, such as real estate or scrap materials, into cash. Such transactions do not change the company's total assets, but they do increase the amount of cash held by the firm. The value of property sales is reduced by the capital gain that is already accounted for in net income. The remainder is a source of cash in the cash flow statement. Property sales are projected using Conrail's

estimates of property sales through 1989; thereafter, the 1989 value is increased with inflation to maintain a constant real level of property sales (see Tables 14 and 15).

Changes in Working Capital

Changes in working capital are allowances for income credited as earned but not yet received, or for expenses credited as paid but not yet expended. In this study, a positive net change in working capital represents funds tied up in the operation of the firm and as such represents a negative source of funds. It is assumed that, as Conrail's revenue rises over time, these net funds owed to the firm will increase. While traffic is growing in the base case, these funds are increased at a rate of \$5 million a year faster than inflation. When traffic levels off in 1992, increases in working capital grow only with inflation. In the low case, changes in working capital increase with inflation throughout the forecast period. Tables 14 and 15 show these projections for each case.

USES OF FUNDS

Conrail uses funds for capital net of financing, for the current portion of long-term debt, and for payments to the government. Expenditures for capital net of financing and the current portion of long-term debt depend directly on the previous and projected levels of capital investment. The projections of Conrail's capital program and capital charges used in the cash flow statement are those derived in Chapter IV and are presented in Table 16. Payments to the government are discussed below.

Payments to the Federal Government

The federal government holds Conrail's long-term debt, preferred stock, and common stock as compensation for previous investments in the corporation. The long-term debt, which totals \$850.9 million, is in the form of 7.5 percent debentures, all of which are held by the U.S. Railway Association. Conrail has two series of preferred stock outstanding: USRA holds all of the 25.6 million shares of Series A issued, and the Department of Transportation holds all of the 31.7 million shares of Series B issued. In addition, the government owns 85 percent of the common stock of the corporation.

TABLE 16. PROJECTIONS OF CONRAIL'S USES OF CASH, 1986-1995
(In millions of current dollars)

Uses of Cash	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Base Case											
Capital Net of Financing	449	383	468	488	508	529	550	573	596	621	646
Debt Installments	126	126	116	113	119	126	135	151	160	163	176
Payments to Government	0	0	0	265	288	289	316	328	334	334	330
Interest on debentures	0	0	0	64	64	64	64	64	64	64	64
Series A dividends	0	0	0	192	192	192	192	192	192	192	192
Series B dividends	0	0	0	10	32	34	61	73	78	78	74
Total uses	575	509	584	866	915	945	1,002	1,052	1,090	1,118	1,151
Low Case											
Capital Net of Financing	449	383	425	406	459	469	479	489	500	510	521
Debt Installments	126	126	115	111	114	117	123	134	138	135	141
Payments to Government	0	0	0	208	171	189	212	224	238	248	256
Interest on debentures	0	0	0	64	64	64	64	64	64	64	64
Series A dividends	0	0	0	144	107	125	148	160	174	184	192
Series B dividends	0	0	0	0	0	0	0	0	0	0	0
Total uses	575	509	540	725	744	775	814	847	876	893	918

SOURCE: For 1985 and 1986, Conrail; for 1987-1995, Congressional Budget Office.

NOTE: Includes Conrail and subsidiaries. Historical data for 1985.

Formula for Determining Payments. Conrail is required to make interest, dividend, and principal payments to the government under terms specified in the May 1979 Amended and Restated Financing Agreement between USRA and Conrail. Cash payments are not required until Conrail's cumulative deficit has been erased and cumulative net income exceeds \$500 million. At that time, total annual payments to the government would be equal to the amount by which cumulative net income exceeds \$500 million (excluding previous payments to the federal government from cumulative net income), or one-half of the previous year's net income, whichever is lower. The priority of claims on the cash available for payments is as follows: interest on debentures, dividends on Series A preferred stock, dividends on Series B preferred stock, payments of principal on debentures, and redemption of Series A preferred stock. There is no mandatory redemption of Series B preferred stock.

In the event that cash payments would be triggered, annual interest due on the debentures equals \$63.8 million. Dividends due on the Series A preferred stock are equal to \$7.50 per share outstanding, or a total of \$191.7 million. Dividends due on the Series B preferred stock are equal to \$5.00 per share outstanding or \$158.7 million. Cash interest and dividend payments, therefore, could total \$414.2 million. This annual amount is not cumulative--any interest or dividends that cannot be paid in the year they are due are not due in any subsequent years. If the previous year's net income exceeds \$828.4 million--twice the total of cash interest and dividend payments--then the additional cash available for the year's payment to the government is applied to the redemption of the principal amount of the debentures. If all debentures have been redeemed, then any excess amount is applied to the redemption of Series A preferred stock.

Forecasting Payments. Payments to the government based on this formula will begin in 1988 in both the base and low cases. In the base case, cumulative net income is \$866 million at the end of 1987, exceeding the stipulated amount of \$500 million by \$366 million, which is more than \$265 million (one-half of net income in 1987). Consequently, a payment to the government of \$265 million is due on April 30, 1988, consisting of \$63.8 million in interest, \$191.7 million in Series A dividends, and \$9.5 million in Series B dividends. Annual payments to the federal government rise to \$330 million under the base case in 1995.

In the low case, cumulative net income exceeds \$500 million by \$242 million at the end of 1987. This is more than \$208 million, or one-half of 1987 net income. Therefore, payments of \$63.8 million in interest and \$144.2 million in dividends on Series A preferred stock are due on April 30,

1988, in this case. No payments are made on Series B stock since the cash available for payments is insufficient to pay the total dividends due on Series A preferred stock. For both cases, the payments due the government in each subsequent year are one-half of the previous year's net income.^{1/} Table 16 shows projections for payments to the government by year for both the base and low cases.

CONRAIL'S CASH FLOW

Projections of Conrail's cash flow for the base and low cases are shown in Tables 17 and 18, respectively. The form of the cash flow statement is the same in both cases: total sources of funds, divided between funds from operations and other sources, are listed first; total uses are listed next; and, finally, the effect on cash balances from net cash flow in each year is presented. The change in cash for each year is total sources of funds minus total uses. Summing this change in cash with the beginning cash balance yields the cash balance at the end of the year.

Two items need to be clarified in the cash flow statement. First, changes in working capital can be either a positive or negative source of funds. CBO's assumption that there are continuous and growing additions to working capital makes these changes a negative source-- equivalent to a use--throughout the forecast period in both the base and low cases. Second, since interest on debentures has been expensed as a cost of capital in net income, uses of funds include the dividend payments on Series A and Series B preferred stock but do not include interest on debentures, to avoid double counting these payments. Consequently, actual total payments to the government in each year after 1987 are the sum of interest on debentures of \$63.8 million a year and the dividend payments from Tables 17 and 18.

Base Case

The projected change in cash is positive and significant in 1986 and 1987 in this case. When payments to the government begin in 1988, however, changes in cash turn negative and remain so for the forecast period. This

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1. For the years after 1988, the calculation is based on the previous year's net income before interest on debentures is paid.

excess of uses over sources is funded by drawing down existing cash balances. The effect of this cash drain can be seen in the ending cash balances in Table 17.

The ending cash balance peaks in 1987 at about \$1.3 billion and declines thereafter. By the end of 1991, cash balances have returned to their level at the beginning of the forecast period. They decline by an average of \$150 million per year over the next four years when payments to the government average \$330 million per year. Undiscounted total payments to the government over the forecast period are about \$2.5 billion, including \$550 million from cash balances existing at the end of 1985 and \$1.9 billion from income earned over the period. In 1995, Conrail's ending cash balance is \$356 million.

Low Case

As in the base case, the change in cash is positive in 1986 and 1987 and turns negative in 1988 with the start of payments to the government. Net cash flow in the 1987-1988 period is about -\$34 million in this case as a result of the recession, compared with \$124 million in the base case. From 1988 to 1995, the decline in cash balances is nearly steady at an average annual level of \$116 million.

Ending cash balances peak at \$1.2 billion in 1987 and then decline by 1989 to their level at the start of the forecast period. The steady decline through 1995 yields a cash balance of \$243 million in that year. Over the forecast period, cumulative undiscounted payments to the government would be about \$1.8 billion, including \$670 million from current cash balances and \$1.1 billion from income earned over the period.

In both cases, ending cash balances remain positive during the forecast period, but they fall below the \$500 million level in 1995 for the base case and in 1993 for the low case. While funds from operations are sufficient to cover operating expenses and to reinvest in the firm throughout the forecast period in the base case and after the recession in the low case, making payments to the government requires the drawdown of cash balances. It appears that sustaining the high levels of cash payments required by the baseline financing agreement will exhaust Conrail's cash reserves in a few years beyond the forecast period. Nonetheless, the results of the net income and cash flow analyses demonstrate that Conrail should be able to meet its obligations over the next decade.

TABLE 17. PROJECTIONS OF CONRAIL'S CASH FLOW, 1986-1995: BASE CASE
(In millions of current dollars)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Total Sources	639	696	767	743	750	812	845	870	884	894	905
Net Income	442	448	530	512	515	569	592	604	603	596	588
Noncash Items	227	224	221	220	229	241	254	267	282	299	319
Funds from Operations	669	672	751	732	744	810	846	871	885	895	906
Property Sales	65	45	41	41	41	43	44	46	48	50	52
Change in Working Capital	-95	-21	-25	-30	-35	-40	-45	-47	-49	-51	-53
Total Uses	575	509	584	803	851	881	938	988	1,026	1,054	1,087
Capital Net of Financing	449	383	468	488	508	529	550	573	596	621	646
Debt Installments	126	126	116	113	119	126	135	151	160	163	176
Dividends to Government ^{a/}	0	0	0	201	224	226	253	264	270	270	266
Change in Cash	64	187	183	-59	-101	-69	-93	-118	-142	-160	-182
Beginning Cash Balance	846	910	1,097	1,280	1,220	1,120	1,051	959	840	699	538
Ending Cash Balance	910	1,097	1,280	1,220	1,120	1,051	959	840	699	538	356

SOURCE: For 1985, Conrail; for 1986-1995, Congressional Budget Office. Capital net of financing and debt installments for 1986 were also supplied by Conrail.

NOTE: Includes Conrail and subsidiaries. Historical data for 1985.

a. Does not include \$63.8 million in interest on debentures that is paid to the federal government and expensed in net income.

TABLE 18. PROJECTIONS OF CONRAIL'S CASH FLOW, 1986-1995: LOW CASE
(In millions of current dollars)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Total Sources	639	685	655	512	551	604	636	668	692	716	743
Net Income	442	437	416	279	314	360	384	412	432	449	468
Noncash Items	227	224	219	215	219	226	234	242	251	262	274
Funds from Operations	669	661	636	494	533	586	618	654	683	710	742
Property Sales	65	45	41	41	41	42	43	44	45	46	46
Change in Working Capital	-95	-21	-22	-23	-23	-24	-25	-30	-35	-40	-45
Total Uses	575	509	540	661	680	711	750	783	812	829	854
Capital Net of Financing	449	383	425	406	459	469	479	489	500	510	521
Debt Installments	126	126	115	111	114	117	123	134	138	135	141
Dividends to Government ^{a/}	0	0	0	144	108	125	148	160	174	184	192
Change in Cash	64	176	114	-148	-129	-107	-114	-115	-120	-113	-111
Beginning Cash Balance	846	910	1,086	1,201	1,052	923	815	702	587	467	354
Ending Cash Balance	910	1,086	1,201	1,052	923	815	702	587	467	354	243

SOURCE: For 1985, Conrail, for 1986-1995, Congressional Budget Office. Capital net of financing and debt installments for 1986 were also supplied by Conrail.

NOTE: Includes Conrail and subsidiaries. Historical data for 1985.

a. Does not include \$63.8 million in interest on debentures that is paid to the federal government and expensed in net income.

The preceding analysis forms the foundation for the discussion of Conrail's viability. The next chapter examines this viability by integrating the traffic forecast, the projected operating results, the projected capital requirements, and the resulting cash flow. Policy options conclude the discussion.